

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554**

In the Matter of	)	
	)	
Amendments to Part 4 of the Commission’s Rules Concerning Disruptions to Communications	)	PS Docket No. 15-80
	)	
New Part 4 of the Commission’s Rules Concerning Disruptions to Communications	)	ET Docket No. 04-35
	)	
The Proposed Extension of Part 4 of the Commission’s Rules Regarding Outage Reporting to Interconnected Voice Over Internet Protocol Service Providers and Broadband Internet Service Providers	)	PS Docket No. 11-82
	)	

**REPLY COMMENTS OF CENTURYLINK**

CenturyLink<sup>1</sup> files these reply comments in response to the Further Notice of Proposed Rulemaking (“FNPRM”) issued in the above-referenced dockets.<sup>2</sup> CenturyLink appreciates the opportunity to provide input into the Federal Communications Commission’s (“FCC” or “Commission”) inquiry regarding “whether and how to update [the] part 4 outage reporting requirements” to address broadband services<sup>3</sup> in a cost-effective manner.<sup>4</sup> Many of the initial comments echo CenturyLink’s positions and urge the Commission to take only very limited action, if any at all. As discussed more thoroughly below, the initial comments reflect

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<sup>1</sup> These reply comments are filed by and on behalf of CenturyLink, Inc. and its subsidiaries.

<sup>2</sup> *Amendments to Part 4 of the Commission’s Rules Concerning Disruptions to Communications, New Part 4 of the Commission’s Rules Concerning Disruptions to Communications, The Proposed Extension of Part 4 of the Commission’s Rules Regarding Outage Reporting to Interconnected Voice Over Internet Protocol Service Providers and Broadband Internet Service Providers*, PS Docket No. 15-80, ET Docket No. 04-35, PS Docket No. 11-82, Report and Order, Further Notice of Proposed Rulemaking, and Order on Reconsideration, FCC 16-63 (rel. May 26, 2016) (“FNPRM”).

<sup>3</sup> FNPRM, ¶ 3.

<sup>4</sup> FNPRM, ¶ 94.

widespread concern, shared by CenturyLink, that amendments to the proposed rules do not ensure the anticipated costs of additional outage reporting requirements outweigh the potential benefits, that the reporting requirements are technically feasible, or that there would be any tangible public safety benefit.

## **I. THE FNPRM FAILS TO SHOW A NEED FOR ADDITIONAL OUTAGE REPORTING.**

Multiple commenters share CenturyLink's concern that there is an inadequate basis to pursue the broad slate of broadband outage reporting rules proposed in the FNPRM. U.S. Telecom observes that the FNPRM "lacks any substantive discussion or analysis of the professed public safety benefits that would result from implementation of the Commission's BIAS outage reporting regime."<sup>5</sup> Similarly, the Wireless Internet Service Providers Association ("WISPA") notes that "the Commission makes no effort to correlate governmental data collection with any specific 'problem' that needs to be 'fixed.'"<sup>6</sup> AT&T Services, Inc. questions the Commission's role in network outage events: "[d]espite the Commission's repeated statements in the *Further Notice* about its need for "situational awareness," suggesting a critical, immediate need for outage information, the Commission plays no role in the process of restoring service to customers."<sup>7</sup> "Given the lack of a clear need for additional outage reporting and the significant

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<sup>5</sup> Comments of the United States Telecom Association ("U.S. Telecom Comments") at 3.

<sup>6</sup> Comments of the Wireless Internet Service Providers Association ("WISPA Comments") at 6. NTCA—The Rural Broadband Association takes a similar position: "Further, there is no evidence that a broadband degradation reporting requirement is needed in the marketplace to continue to ensure that service providers protect the public's safety . . . Not every incident of BIAS degradation will rise to the significant level needed to trigger a public safety event, and while the network performance information might be useful in other contexts, the Commission should not be using its Part 4 rules and related NORS as a vehicle to obtain it." ("NTCA Comments") at 6.

<sup>7</sup> AT&T Services, Inc. Comments at 15. U.S. Telecom agrees: "The Commission, however, does not disclose in any substantive manner how its "situational awareness" will materially improve the reliability and resiliency of broadband networks; nor does it provide any

burdens it could impose, the Commission must carefully evaluate how great the need (as opposed to desire) for increased Voice over Internet Protocol (“VoIP”) and broadband outage reporting actually is before imposing additional reporting requirements on providers.”<sup>8</sup>

In addition to questions about what benefits additional reporting would provide, there are also substantial questions about the costs such reporting would trigger. While Public Knowledge asserts these compliance costs would be “small,”<sup>9</sup> those that would bear these costs disagree. The American Cable Association (“ACA”) states that its members “today do not collect, analyze and store the information the Commission suggests would be used to determine whether an outage has occurred on their broadband or VoIP network, and doing so would require purchasing equipment and software, and expending staff hours to analyze the data.”<sup>10</sup> AT&T observes that the Commission “habitually underestimates costs of network outage reporting” “by orders of magnitude,”<sup>11</sup> and recommends that any network outage reporting burdens be carefully tailored to the regulatory need in order to minimize costs and eliminate obstacles to efficient restoration.<sup>12</sup>

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justification for how such data will help the agency “perform its mission more effectively.”” U.S. Telecom Comments at 4.

<sup>8</sup> Comments of the American Cable Association (“ACA Comments”) at 9-10.

<sup>9</sup> “Based on the fact of the Tech Transition, as well as the knowledge that carriers monitor their reliability for their own purposes, the Commission can reasonably assume that the additional cost of Part 4 reporting is comparatively small, and certainly outweighed by the considerable public benefits.” Ex parte letter from Harold Feld, Public Knowledge to Marlene H. Dortch (FCC) at 4-5.

<sup>10</sup> ACA Comments at 14. WISPA also raises concerns about costs: “To its credit, the Commission takes the rare step of projecting the costs of filing outage reports under its proposed rules. However, the Commission vastly underestimates these costs and, more importantly, fails to assess the relative impact of its proposed rules on small providers. Fairly considered, the actual costs will be considerably higher than the Commission’s estimates and will have a higher relative adverse impact on small providers.” WISPA Comments at 11.

<sup>11</sup> AT&T Comments at 7.

<sup>12</sup> AT&T Comments at 16.

As CenturyLink discussed in its initial filing, the Commission should focus on a subset of proposed rule changes most likely to benefit public safety<sup>13</sup> to ensure the benefits of new rules remain commensurate to the anticipated costs.

## **II. ANY NEW RULES SHOULD FOCUS ON PUBLIC SAFETY AND HAVE CLEAR BENEFITS THAT WILL JUSTIFY THEIR COSTS.**

Several commenters agree with CenturyLink's position that the comprehensive broadband outage reporting rules proposed in the FNPRM should be narrowed to address public safety impacts.<sup>14</sup> While CenturyLink believes industry working groups are better suited to develop and address these requirements than a rulemaking,<sup>15</sup> if the Commission concludes to move forward here, outages concerning BIAS and dedicated services, as ultimately defined, should be reported to the Commission only to the extent they affect 911 special facilities as defined in Section 4.5(e)(1) of the Commission's rules.

### **A. Any Outage Reporting Requirements Must Be Confined To Outages On The Provider's Own Network.**

Numerous commenters reiterate CenturyLink's position that broadband outage reporting obligations must apply only to a provider's own network.<sup>16</sup> AT&T describes several valid

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<sup>13</sup> Comments of CenturyLink at 8.

<sup>14</sup> "ITTA asserts that any associated requirements should be limited to instances where an outage affects 911 special facility under Section 4.5(e)(1) of the Commission's rules." Comments of ITTA – The Voice of Mid-Size Communications Companies ("ITTA Comments") at 6.

<sup>15</sup> "Consistent with existing law, the FCC should cease creating 9-1-1 outage reporting policies in the abstract and return to collaboration and consensus-based forums to develop and finalize voluntary best practices for providing public safety grade NG9-1-1 services, including examining overall monitoring, reliability, notifications, and accountability in NG9-1-1 environments, which should be accomplished in an appropriate and timely manner." Comments of Comtech Telecommunications Corp. ("Comtech Comments") at 4.

<sup>16</sup> "Broadband providers, however, cannot adequately report for outages beyond the network facilities that they control." Comments of Hughes Network Systems, LLC ("Hughes Comments") at 3. "Moreover, requiring over-the-top providers to report outages caused by failures on broadband networks that the providers do not own or control is inconsistent with the

concerns with the FNPRM's proposal to attach broader reporting obligations to broadband providers, including having them act as a central repository for information:

Specifically, as a complete reversal of decades-old outage reporting practice, the Commission proposes to make broadband providers responsible for providing reports about facilities that they do not own, operate, lease, or use . . . First, the enormous cost of foisting an FCC responsibility on a provider is totally unjustifiable under any cost-benefit analysis . . . Second, it is highly dubious that the Commission would have any legal authority to compel a private party to take on a government responsibility in that way. Third, the practical reality is that, to some extent or another, broadband providers are likely competitors with the other reporting entities . . . Fourth, the provider serving as the central reporter would have no authority to compel cooperation in reporting and cannot be responsible, including with potential enforcement liability, for timely or accurate reporting of another provider over which it has no control . . .<sup>17</sup>

“Additionally, requiring providers to report on the source of outages originating on other networks would entail speculation as to the source or scope of the outage and yield multiple, potentially conflicting reports that could hinder any FCC investigation.”<sup>18</sup> Thus, the proposal should be limited as recommended by CenturyLink and other commenters to align with current Part 4 rules and avoid creating an unreasonable reporting paradigm.

#### B. Cybersecurity Reporting Is Unnecessary.

There is also broad support for CenturyLink's position that additional outage reporting on cybersecurity issues is unwarranted and that this issue is best left to industry working groups and

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FCC's approach to broadband and edge services generally.” Comments of Vonage Holdings Corp. (“Vonage Comments”) at 9.

<sup>17</sup> AT&T Comments at 12. See also Hughes Comments at 6: “Importantly, the metric should focus on the path from a customer's premises to the first Internet hand-off point where the customer's traffic leaves the sole control of the BIAS provider. Downstream connectivity issues, such as an inability to reach a specific provider, are difficult to detect, and BIAS providers often will not be able to provide useful information on the scope, duration, or cause of such performance degradation.”

<sup>18</sup> Hughes Comments at 3.

existing governmental initiatives.<sup>19</sup> U.S. Telecom affirms that “[t]hrough the Commission’s Network Outage Reporting System (NORS) portal, providers are already reporting instances of network outages attributable to cybersecurity incidents, while providing general information on the nature, extent and impact of such outages.”<sup>20</sup> CTIA wisely states that “[c]onsidering ways to minimize these and other cybersecurity-related events is appropriate for industry and the Commission to discuss through CSRIC or other groups.”<sup>21</sup> The Commission’s Communications Security, Reliability and Interoperability Council has been working to identify and assess “perceived technical, legal, financial, consumer/market, operational, and/or organization impediments to cyber threat information sharing,” as well as to “analyze potential solutions and develop recommendations that would enable cybersecurity information to be broadly shared across the communications sector.” CenturyLink agrees with ACA that these are complex issues that must be examined carefully, and the Commission should not adopt any requirements related to cybersecurity until they have been fully resolved.<sup>22</sup>

C. Commenters Support Streamlining the Proposed “Hard Down” Threshold And Focusing On Reporting These Events Rather Than Performance Degradation.

Although CenturyLink maintains that only broadband outages that affect a 911 special facility should be reported, if the Commission concludes to move forward with more extensive reporting, there is much support in the record for adopting a simple user-minute threshold

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<sup>19</sup> The proposed approach would be “inconsistent with that adopted by the White House, which in 2015 released an Executive Order on Promoting Private Sector Cybersecurity Information Sharing that directed the Secretary of Homeland Security to encourage the development and formation of Information Sharing and Analysis Organizations (“ISAO”) for the purpose of encouraging private sector entities to share cyber threat information on a voluntary basis.” ACA Comments at 30-31.

<sup>20</sup> U.S. Telecom Comments at 17.

<sup>21</sup> Comments of CTIA at 11.

<sup>22</sup> Id.

consistent with CenturyLink’s initial comments. Numerous commenters agree with CenturyLink that the FNPRM’s “hard down” threshold should be revised in favor of a standard that focuses on the duration of the outage and number of customers impacted and aligns with the current 900,000 user-minute metric.<sup>23</sup> While NASNA advocates imposing a lower user-minute threshold for reporting broadband outages,<sup>24</sup> CenturyLink believes this would be a very significant change and that keeping the existing 900,000 user-minute threshold is important for consistency across services.

Many commenters are concerned about how to appropriately define metrics to measure broadband performance degradation and, like CenturyLink, urge the Commission to focus instead on “hard down” events. Cited reasons include the complexity of various metrics and how to measure them to assess customer impact,<sup>25</sup> along with concerns about the costs of

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<sup>23</sup> WISPA Comments at 18 (“When applied to a broadband network, the only reasonable standard is the number of subscribers affected by a “hard down” outage over a specified time period.”); Comments of Comcast Corporation at 20 (“In short, use of the existing 900,000 user minute threshold (for outages lasting at least 30 minutes in duration) would “better capture . . . the number of subscribers impacted” relative to the proposed throughput-based metric.”); ACA Comments at 19 (“Accordingly, instead of adopting a reporting threshold based on throughput, the Commission should continue to use the familiar outage reporting threshold of 30 minutes/900,000 user minutes affected for hard down outage reporting.”); AT&T Comments at 17 (“The throughput-based threshold is unnecessarily complicated given various network configurations, including design and bandwidth. It would be more costly to implement than the already-familiar 900,000 user minute threshold.”).

<sup>24</sup> “Rather than a geography-based threshold for outage reporting to capture outages that occur in rural areas, NASNA would prefer the method of imposing a lower user-minute threshold for reporting outages.” Comments of the National Association of State 911 Administrators (“NASNA Comments”) at 4.

<sup>25</sup> ACA Comments at 16-17 (“Because the utility of receipt of performance degradation information is low and the likely costs high, any mandatory reporting requirement for BIAS and interconnected VoIP should continue to be based only for “hard down” outages and should be based on data and information available to network operators in the ordinary course of business that does not require the purchase and installation of costly monitoring equipment.”); AT&T Comments at 18 (“The Commission should focus (if at all) on actual outages— complete loss of service. It should not require covered broadband providers to report on losses of “generally

compliance.<sup>26</sup> Given these concerns, the best approach is to focus reporting on “hard down” events as these are most impactful to the public.

D. The Record Supports Moving to a Two-Stage Outage Reporting Process.

Many commenters support CenturyLink’s proposal to shift from the current three-stage outage reporting process to the two-step process currently in place for interconnected VoIP services. VoIP providers are concerned about meeting the faster timelines associated with three-phase reporting.<sup>27</sup> Commenters question the value of the initial report, and whether the information provided justifies the burden.<sup>28</sup> As ACA observes, “[i]f the Commission extends reporting requirements to any broadband services, it should adopt the least burdensome means of reporting in order to achieve its intended goals as stated in the FNPRM. There is no evidence in the record to support the conclusion that the current two-part reporting process applied to interconnected VoIP providers has not proven effective overall in providing timely notification

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useful availability and connectivity.” This is a vague concept that is not easily measurable through narrowly tailored, bright-line rules—least of all the Commission’s proposed throughput, packet loss, and latency metrics, which are ineffective measures of customer-affecting degradation.”).

<sup>26</sup> Comcast Comments at 17, 18 (“Because monitoring capabilities for these performance metrics are not built into cable modems today, both software and hardware would have to be replaced in every home. The devices themselves would become more costly.” . . . “Notably, more limited performance degradation monitoring requirements also would prove excessively costly. Even if the performance degradation monitoring were to take place at the most highly aggregated level – at the backbone layer – Comcast estimates that it could cost millions of dollars to initially acquire and install the necessary monitoring equipment.”).

<sup>27</sup> Comments of the Voice on the Net Coalition (“VON Comments”) at 8-9. (“Due to the complexity of IVoIP service, and the fact that IVOIP providers cannot conduct end-to-end troubleshooting when a customer is accessing its service over an unaffiliated provider’s broadband network, service failures are difficult to detect and isolate. Providing notification within two hours will be challenging, if not impossible.”)

<sup>28</sup> VON Comments at 9-10. (“Further, little new information, if any, would be added by submission of another report 70 hours later. Indeed, requiring interim reports would increase inconsistency in reporting, as such rushed information gathering may be contradicted later in the final report.”)



to the Commission of a reportable outage while minimizing burdens placed upon providers who are working to restore service immediately upon discovery of an outage.”<sup>29</sup> Accordingly, the Commission should adopt a uniform two-part outage reporting scheme for all services where reporting is required.<sup>30</sup>

E. There is No Record Support to Require Outage Reporting for Wireline Network Access Events.

In its initial comments, CenturyLink opposed the Commission’s proposal to adopt outage reporting requirements for wireline network access events. While many entities support CenturyLink’s position,<sup>31</sup> even more notably, there is no support in the record to move forward with the Commission’s proposal. As CTIA notes, “[r]equiring carriers to report when networks are operating at 100 percent capacity, with no outage or disruption event, goes far beyond the

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<sup>29</sup> ACA Comments at 27. See also Comcast Comments at 26 (“In light of these considerations, there can be no serious doubt that the three-part outage reporting system simply is “not a good model” for IP-based services. Accordingly, to the extent the Commission wishes to adopt a single outage reporting process, it should eliminate this more burdensome process entirely and instead require all providers to file a notification within 24 hours and a final report within 30 days.”)

<sup>30</sup> “Adopting a consistent approach for all affected providers would ensure that the Commission’s rules do not distinguish among different types of providers based on technology. Moreover, taking this approach would simplify the reporting process, eliminate unnecessary reporting obligations, and lead to more accurate and meaningful reporting because it would give providers additional time to determine whether a reportable outage has actually occurred, and to evaluate its impact and cause.” (ITTA at 15); Comcast Comments at 27: “Finally, adoption of a uniform outage reporting system for all services will improve the Commission’s ability to compare the ‘reliability and resiliency’ of various services, provided it requires each service to report disruptions separately.”

<sup>31</sup> See Comments of Verizon at 7; AT&T Comments at 28 (“In fact, the proposed rules would not capture outages at all and would only capture whether the engineered capacity of a particular facility was exceeded . . . The Commission’s proposed metrics, if adopted, would flood the Commission with useless data—telling it nothing about whether customers’ calls were affected at all—while simultaneously creating significant costs of administration and compliance for providers.”)

purpose of the Part 4 rules and the rationale for this rulemaking.”<sup>32</sup> CenturyLink urges the Commission to reject its proposal and focus reporting on areas more likely to yield useful information that produces a public safety benefit.

### **III. CONCLUSION.**

CenturyLink appreciates the Commission’s efforts to update its outage reporting rules to keep pace with the public’s use of new technologies. CenturyLink urges the Commission to thoughtfully consider the comments that have been filed and, instead of the extensive new regulation the Commission proposes in the FNPRM, to narrowly tailor any new rules to focus on the 911 network and consider additional rules in the future if further steps are necessary to protect public safety.

Respectfully submitted,

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<sup>32</sup> CTIA Comments at 14.